

FIG. 1

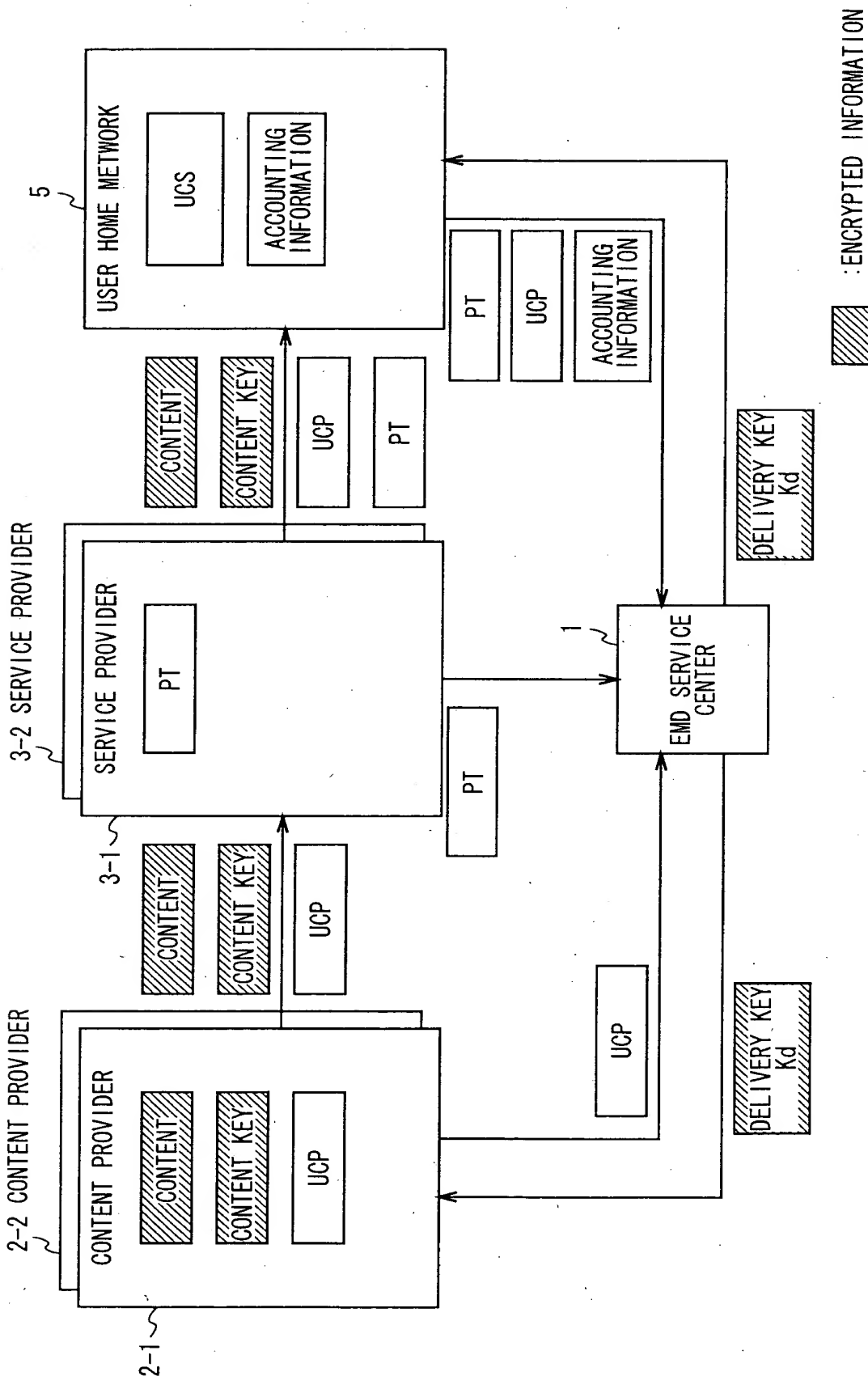
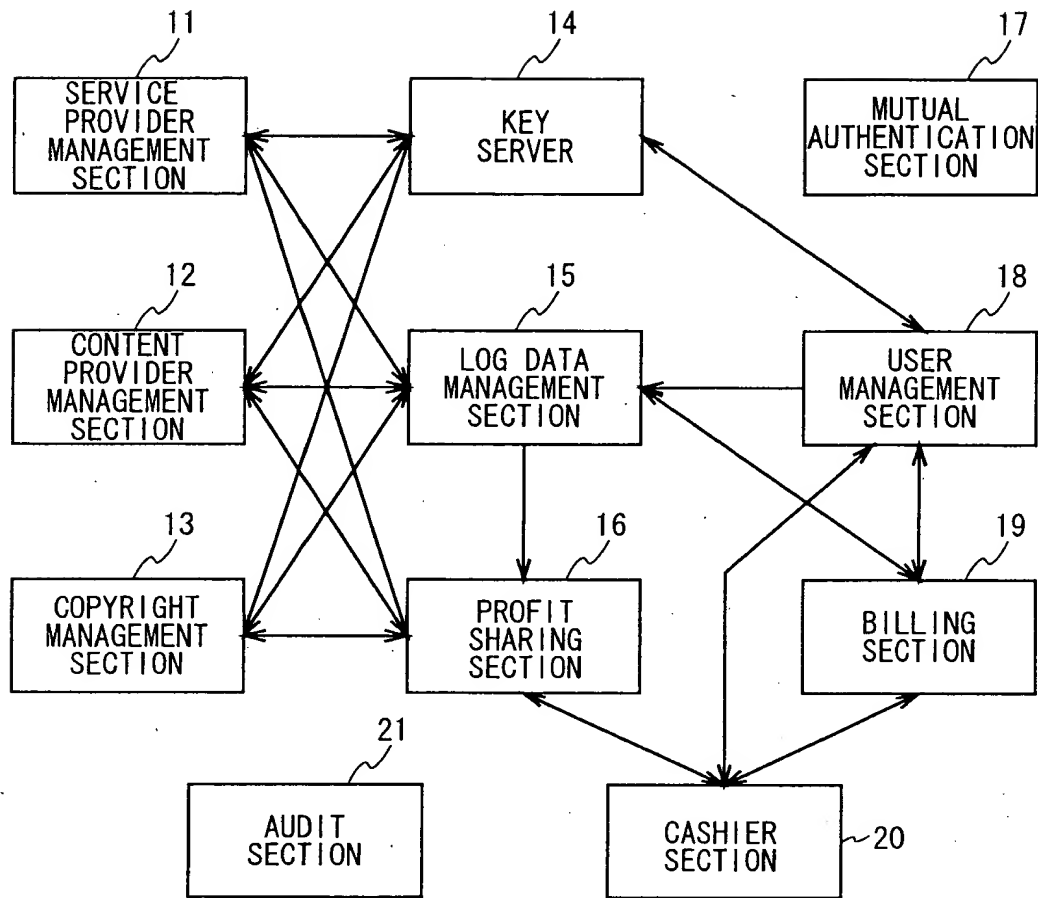


FIG. 2



EMD SEVICE CENTER 1

FIG. 3

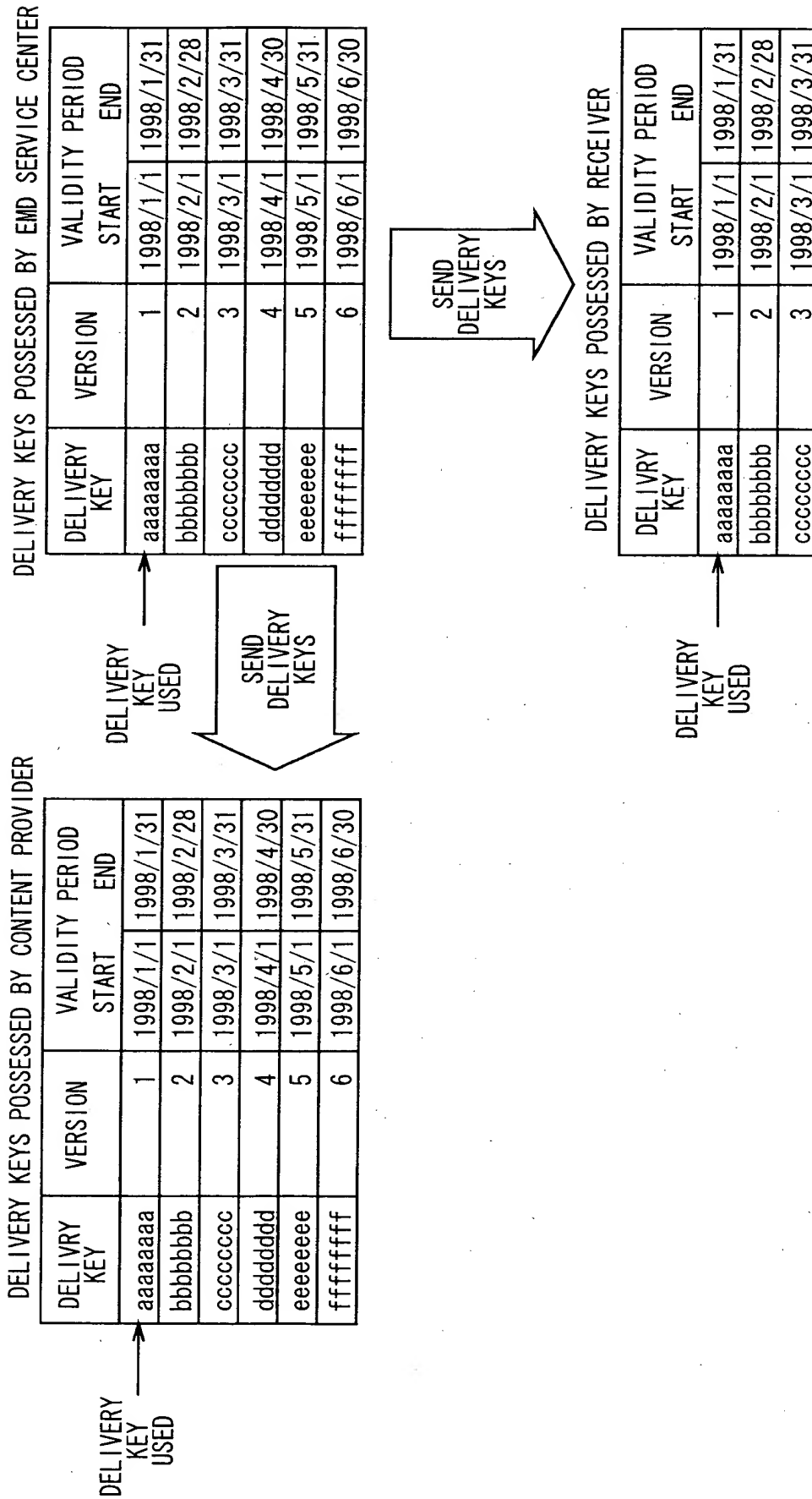


FIG. 4

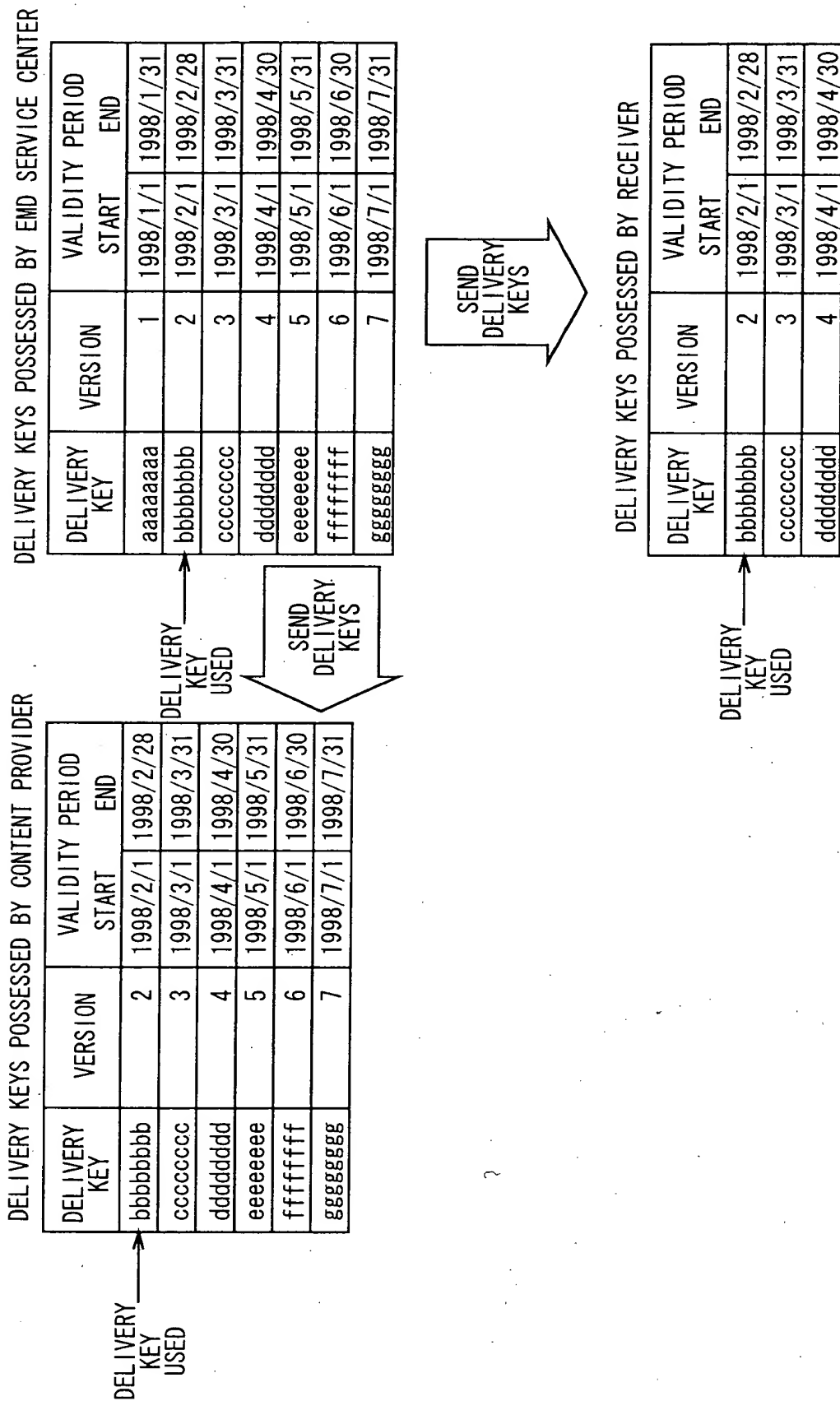
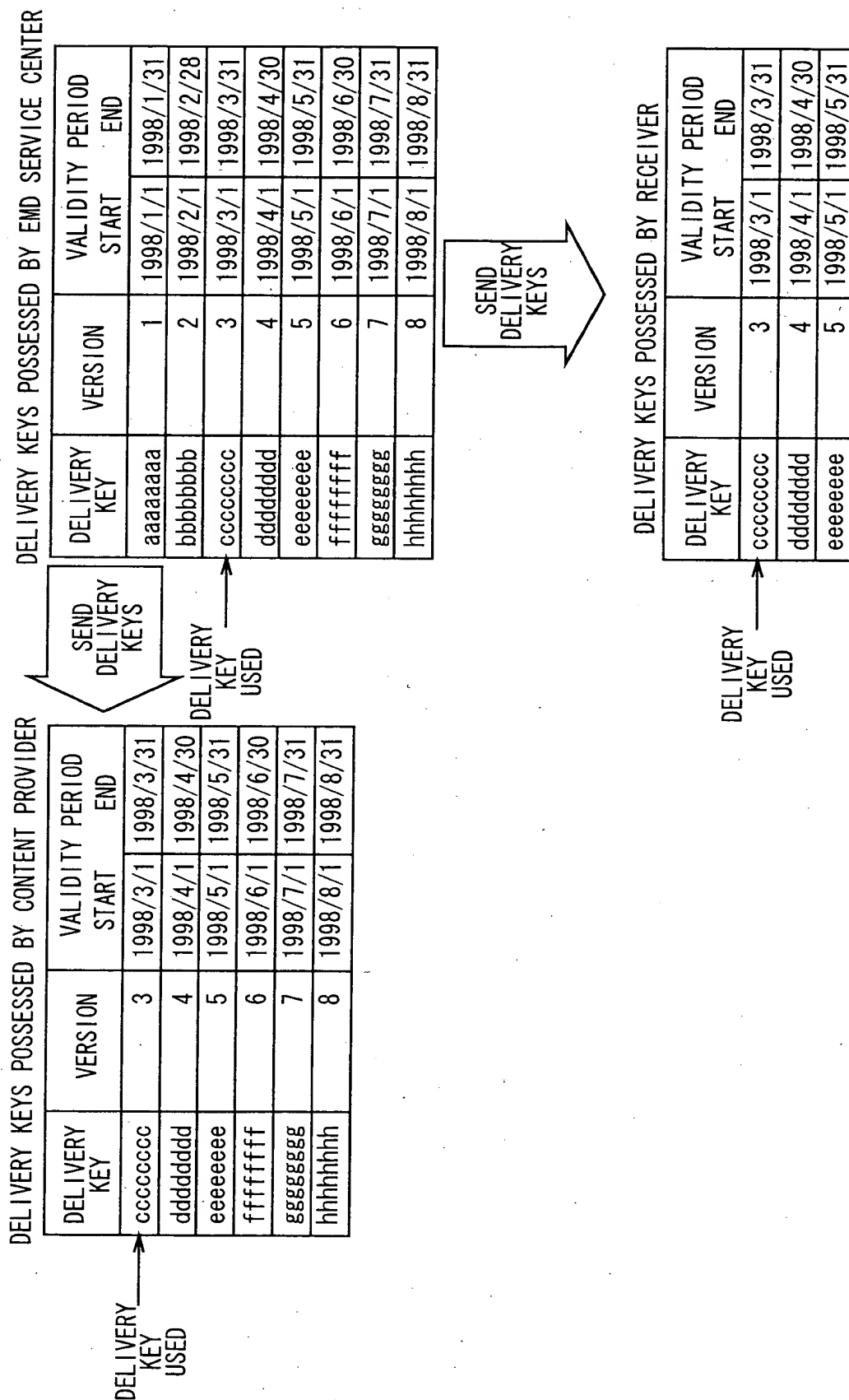


FIG. 5



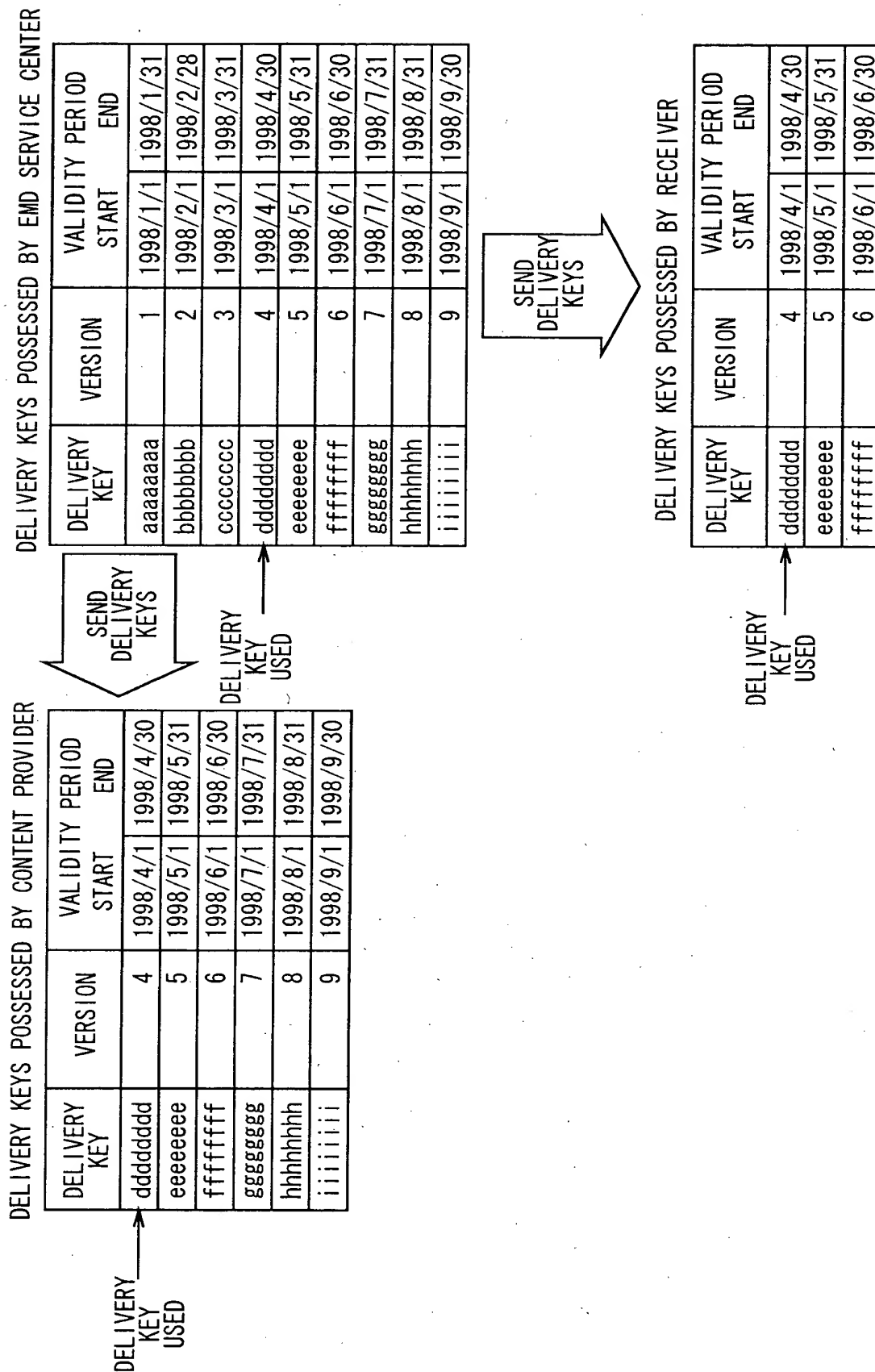


FIG. 7

DELIVERY KEYS	VERSION	VALIDITY PERIOD	
		START	END
aaaaaaaaa	1	1998/1/1	1998/1/31

TEMPORARY DELIVERY KEYS Kd

FIG. 8

09/719111 120800



SAM ID		ID OF SAM62	ID OF SAM212
EQUIPMENT NUMBER		EQUIPMENT NUMBER (100) OF RECEIVERS 51	EQUIPMENT NUMBER (100) OF RECEIVERS 201
SETTLEMENT ID		SETTLEMENT NUMBER	SETTLEMENT NUMBER
ACCOUNT-SETTLING USER INFORMATION	NAME	NAME OF USER F	NAME OF USER F
	ADDRESS	ADDRESS OF USER F	ADDRESS OF USER F
	PHONE NUMBER	PHONE NUMBER OF USER F	PHONE NUMBER OF USER F
	SETTLEMENT INSTITUTION INFORMATION	SETTLEMENT INSTITUTION INFORMATION OF USER F	SETTLEMENT INSTITUTION INFORMATION OF USER F
	DATE OF BIRTH	DATE OF BIRTH OF USER F	DATE OF BIRTH OF USER F
	AGE	AGE OF USER F	AGE OF USER F (35)
	SEX	SEX OF USER F	SEX OF USER F (MALE)
	USER ID	USER ID OF USER F	USER ID OF USER F
	PASSWORD	PASSWORD OF USER F	PASSWORD OF USER F
SUBORDINATE USER INFORMATION	NAME		
	ADDRESS		
	PHONE NUMBER		
	DATE OF BIRTH		
	SEX		
	USER ID		
	PASSWORD		
USE POINT INFORMATION		USE POINT INFORMATION OF RECEIVERS 51	USE POINT INFORMATION OF RECEIVERS 201

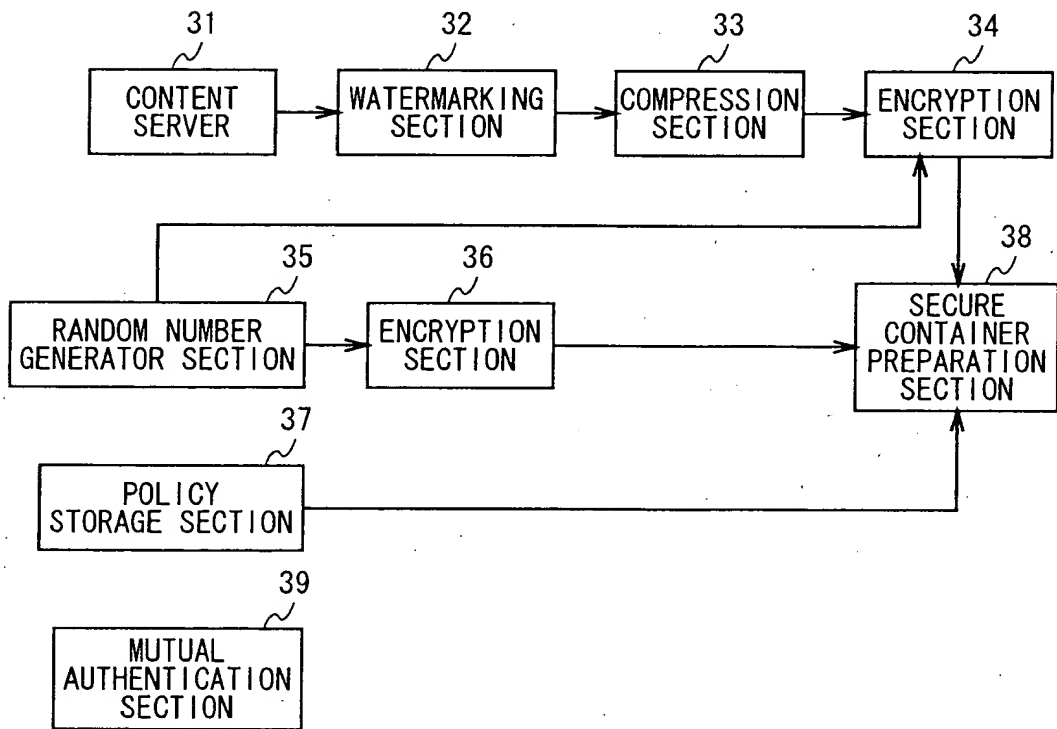
## SYSTEM REGISTRATION INFORMATION

FIG. 9

USER	PROVIDER	USE POINT
ACCOUNT- SETTLING USER	CONTENT PROVIDER2-1	222POINTS
	CONTENT PROVIDER2-2	123POINTS
	SERVICE PROVIDER3-1	345POINTS
	SERVICE PROVIDER3-2	0POINT

USE POINT INFORMATION

FIG. 10



CONTENT PROVIDER 2-1

FIG. 11

CONTENT ID	ID OF CONTENT A
CONTENT PROVIDER ID	ID OF CONTENT PROVIDER 2-1
UCP ID	ID OF UCPA
UCP VALIDITY	VALIDITY PERIOD OF UCPA
USAGE CONDITIONS 10	USER CONDITIONS 10
	EQUIPMENT CONDITIONS 10
USAGE DETAILS 11	ID 11
	TYPE 11
	PARAMETER 11
	CONTROL TRANSFER PERMISSION INFORMATION 11
USAGE DETAILS 12	ID 12
	TYPE 12
	PARAMETER 12
	CONTROL TRANSFER PERMISSION INFORMATION 12
USAGE DETAILS 13	ID 13
	TYPE 13
	PARAMETER 13
	CONTROL TRANSFER PERMISSION INFORMATION 13
USAGE DETAILS 14	ID 14
	TYPE 14
	PARAMETER 14
	CONTROL TRANSFER PERMISSION INFORMATION 14

A

CONTENT ID	ID OF CONTENT A
CONTENT PROVIDER ID	ID OF CONTENT PROVIDER 2-1
UCP ID	ID OF UCPB
UCP VALIDITY PERIOD	VALIDITY PERIOD OF UCPB
USAGE DETAILS 20	USER CONDITIONS 20
	EQUIPMENT CONDITIONS 20
USAGE DETAILS 21	ID 21
	TYPE 21
	PARAMETER 21
	CONTROL TRANSFER PERMISSION INFORMATION 21
USAGE DETAILS 22	ID 22
	TYPE 22
	PARAMETER 22
	CONTROL TRANSFER PERMISSION INFORMATION 22

UCPB

UCPA

FIG. 12

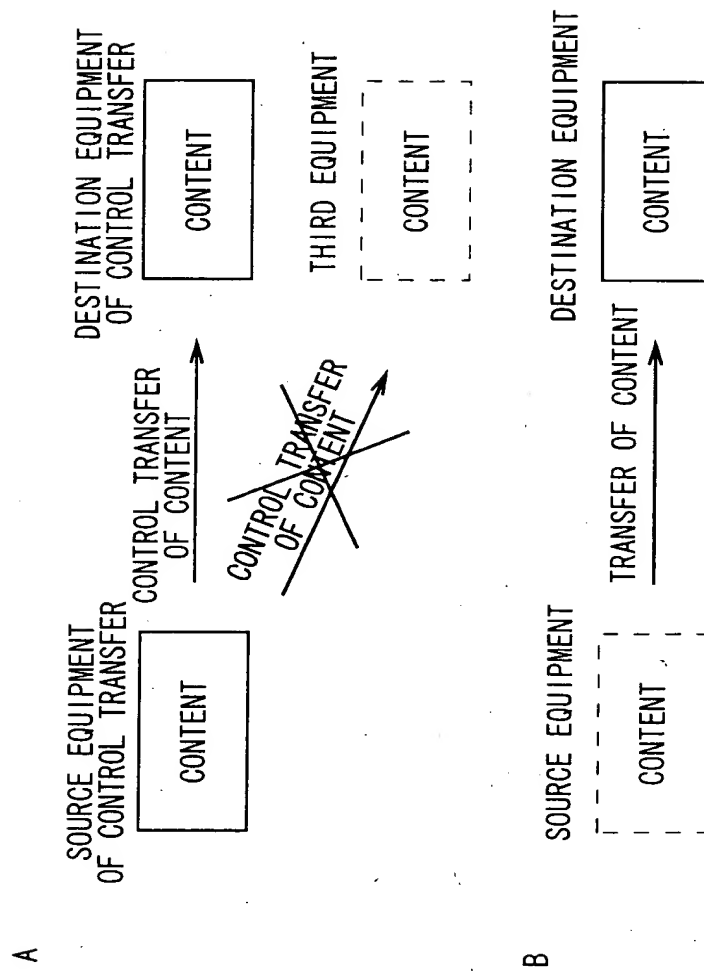


FIG. 13

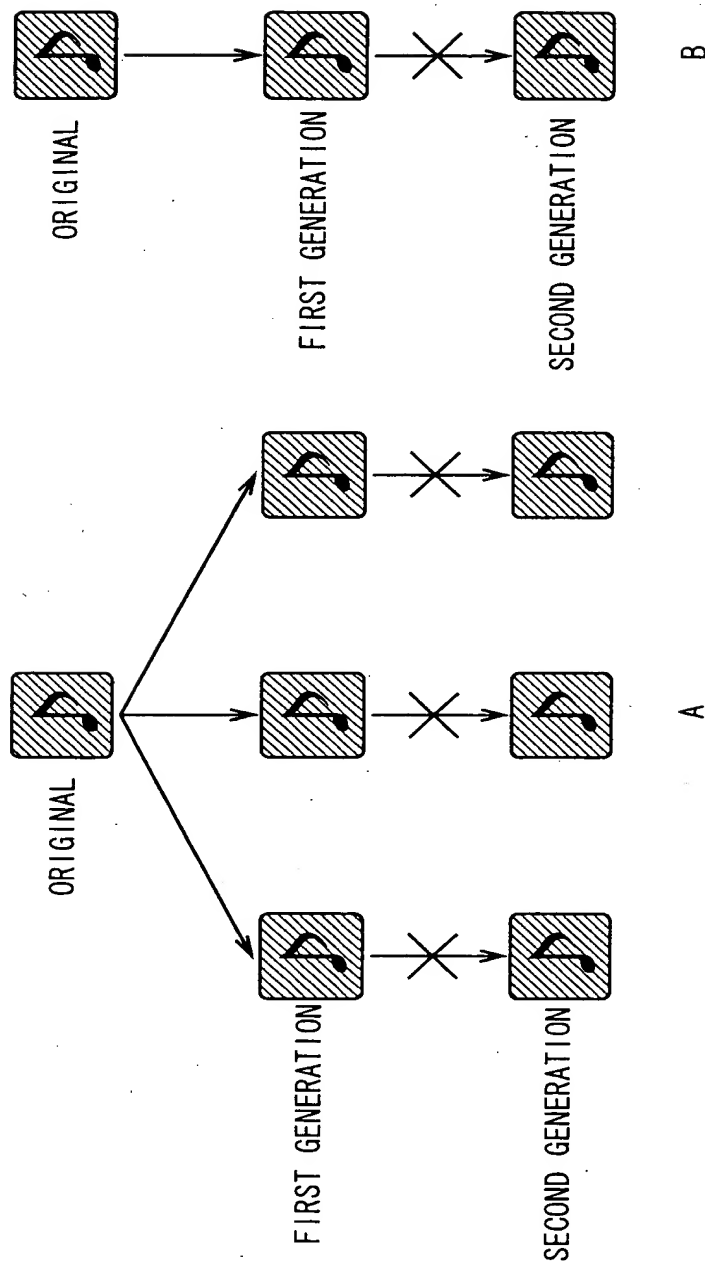


FIG. 14

A

SERVICE CODE	INDICATION
0000h	NO CONDITION
0001h TO 00FFh	WITH CONDITIONS FOR EQUIPMENT
0100h TO 01FFh	WITH CONDITIONS FOR SEX
0200h TO 02FFh	WITH CONDITIONS FOR AGE
0300h TO 7FFFh	WITH OTHER CONDITIONS
8000h TO FFFFh	WITH CONDITIONS FOR USE POINT

B

CONDITION CODE	INDICATION
00h	NO CONDITION
01h	=
02h	≠
03h	< (SMALLER)
04h	> (LARGER)
05h	≤ (EQUAL OR SMALLER)
06h	≥ (EQUAL OR LARGER)
07h TO FFh	FREE

FIG. 15

USER CONDITIONS 10	SERVICE CODE	VALUE CODE	CONDITION CODE
	80 × × h	0000C8h	06h
EQUIPMENT CONDITIONS 10	SERVICE CODE	VALUE CODE	CONDITION CODE
	0000h	FFFFFFh	00h

USAGE CONDITIONS 10 OF UCPA

B

USER CONDITIONS 20	SERVICE CODE	VALUE CODE	CONDITION CODE
	80 x x h	0000C8h	03h
EQUIPMENT CONDITIONS 20	SERVICE CODE	VALUE CODE	CONDITION CODE
	0000h	FFFFFFFh	00h

USAGE CONDITIONS 20 OF UCPB

FIG. 16

# DO NOT INFER

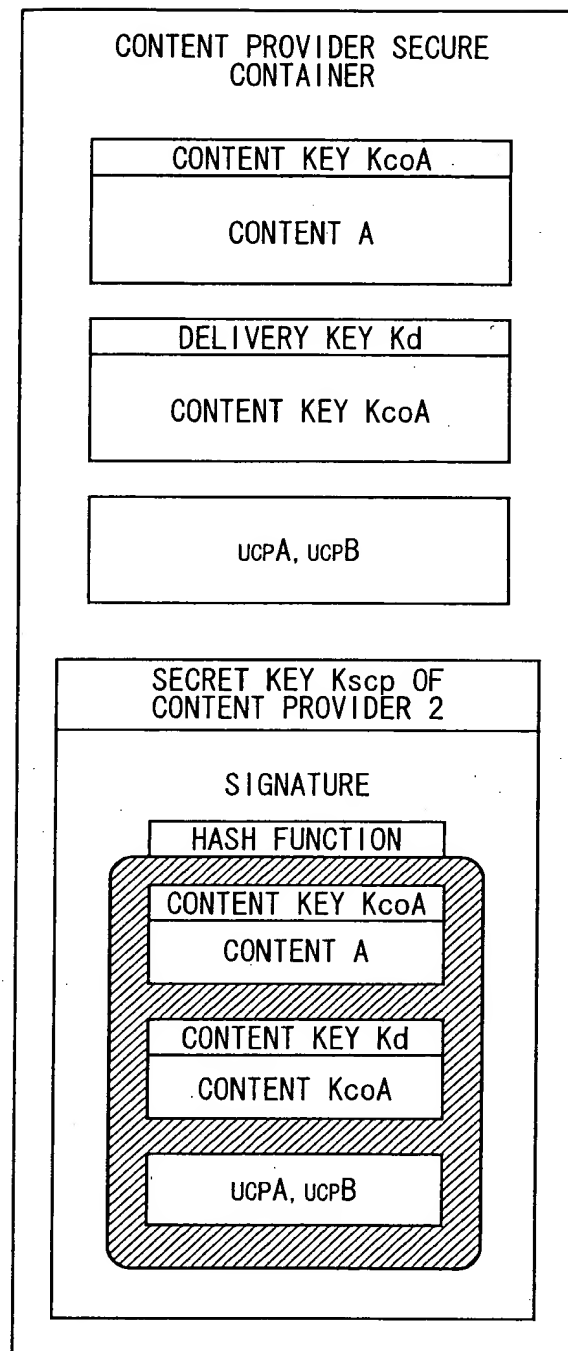


FIG. 17



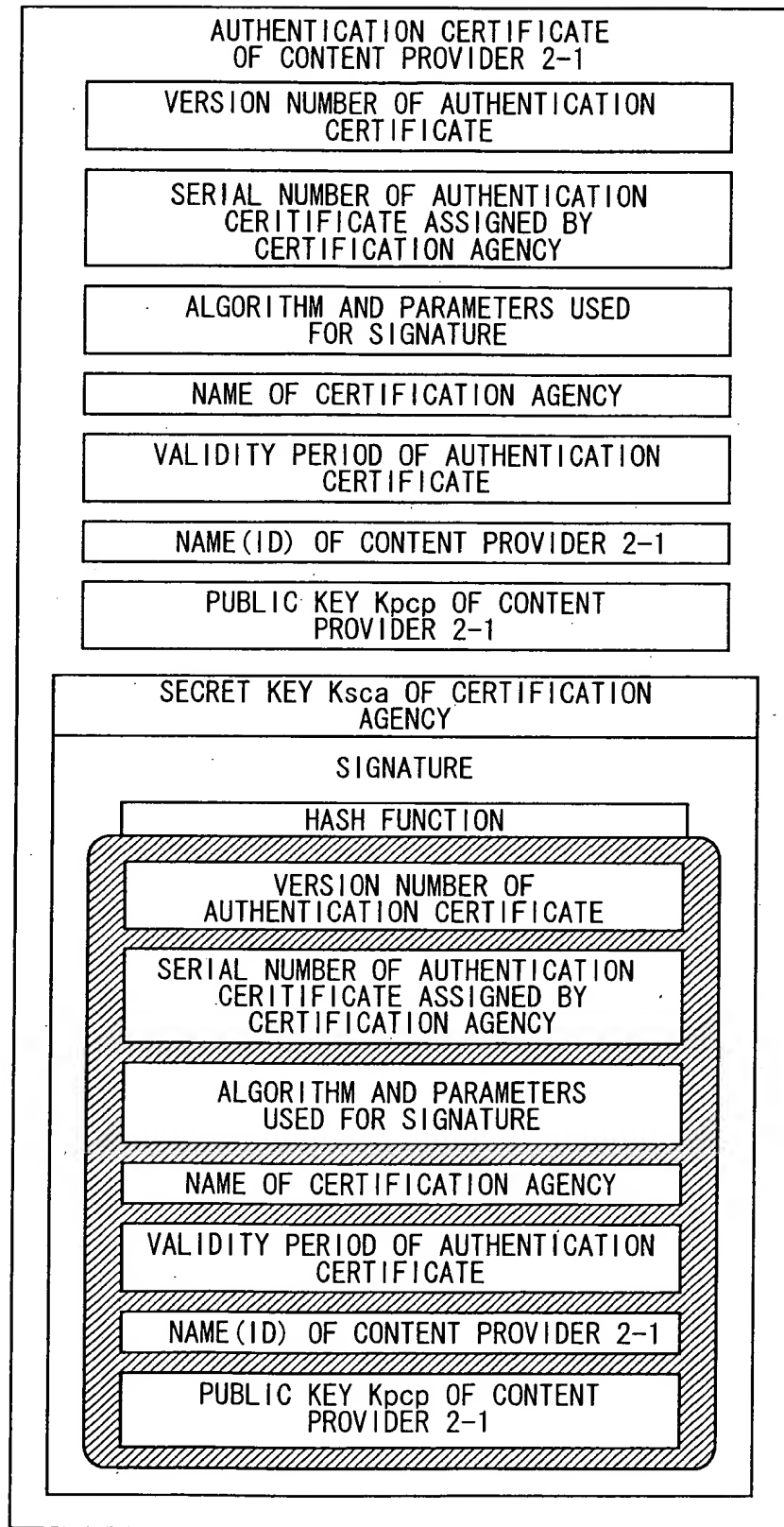


FIG. 18

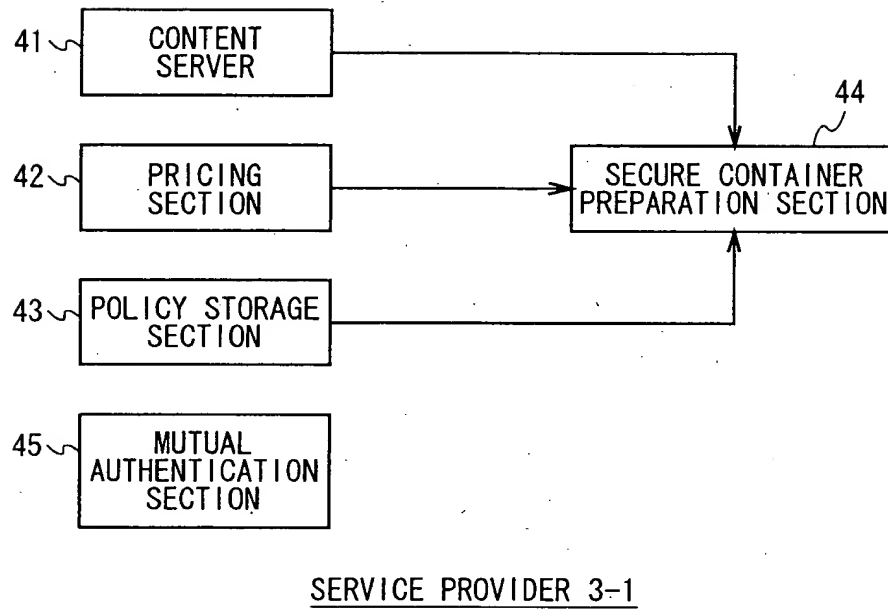


FIG. 19

A

CONTENT ID	ID OF CONTENT A
CONTENT PROVIDER ID	ID OF CONTENT PROVIDER 2-1
UCP ID	ID OF UCP A
SERVICE PROVIDER ID	ID OF SERVICE PROVIDER 3-1
PT ID	ID OF PTA-1
PT VALIDITY PERIOD	VALIDITY PERIOD OF PTA-1
PRICING CONDITIONS 10	USER CONDITIONS 10
	EQUIPMENT CONDITIONS 10
	NO CONDITIONS
	PRICE 11
	PRICE 12
PRICE 13	PRICE 14
	PRICE 15
	PRICE 16

PTA-1

B

CONTENT ID	ID OF CONTENT A
CONTENT PROVIDER ID	ID OF CONTENT PROVIDER 2-1
UCP ID	ID OF UCP A
SERVICE PROVIDER ID	ID OF SERVICE PROVIDER 3-1
PT ID	ID OF PTA-2
PT VALIDITY PERIOD	VALIDITY PERIOD OF PTA-2
PRICING CONDITIONS 20	USER CONDITIONS 20
	EQUIPMENT CONDITIONS 20
	NO CONDITIONS
	PRICE 21
	PRICE 22
PRICE 23	PRICE 24
	PRICE 25
	PRICE 26

PTA-2

FIG. 20

A

USER CONDITIONS 10	SERVICE CODE	VALUE CODE	CONDITION CODE
	01 × × h	000000h	01h
EQUIPMENT CONDITIONS 10	SERVICE CODE	VALUE CODE	CONDITION CODE
	0000h	FFFFFFh	00h

USAGE CONDITIONS 10 OF PTA-1

B

USER CONDITIONS 20	SERVICE CODE	VALUE CODE	CONDITION CODE
	01 × × h	000001h	01h
EQUIPMENT CONDITIONS 20	SERVICE CODE	VALUE CODE	CONDITION CODE
	0000h	FFFFFFh	00h

USAGE CONDITIONS 20 OF PTA-2

FIG. 21

008021" TTT6T460

CONTENT ID	ID OF CONTENT A	CONTENT ID	ID OF CONTENT A
CONTENT PROVIDER ID	ID OF CONTENT PROVIDER 2-1	CONTENT PROVIDER ID	ID OF CONTENT PROVIDER 2-1
UCP ID	ID OF UCP B	UCP ID	ID OF UCP B
SERVICE PROVIDER ID	ID OF SERVICE PROVIDER 3-1	SERVICE PROVIDER ID	ID OF SERVICE PROVIDER 3-1
PT ID	ID OF PTB-1	PT ID	ID OF PTB-2
PT VALIDITY PERIOD	VALIDITY PERIOD OF PTB-1	PT VALIDITY PERIOD	VALIDITY PERIOD OF PTB-2
PRICING CONDITIONS 30	USER CONDITIONS 30	PRICING CONDITIONS 40	USER CONDITIONS 40
	EQUIPMENT CONDITIONS 30		EQUIPMENT CONDITIONS 40
PRICE 31	100YEN	PRICE 41	50YEN
PRICE 32	300YEN	PRICE 42	150YEN

ptB-1

A

ptB-2

B

FIG. 22

USER CONDITIONS 30	SERVICE CODE	VALUE CODE	CONDITION CODE
	0000h	FFFFFFh	00h
EQUIPMENT CONDITIONS 30	SERVICE CODE	VALUE CODE	CONDITION CODE
	00 × × h	000064h	03h

USAGE CONDITIONS 30 OF PTB-1

USER CONDITIONS 40	SERVICE CODE	VALUE CODE	CONDITION CODE
	0000h	FFFFFFh	00h
EQUIPMENT CONDITIONS 40	SERVICE CODE	VALUE CODE	CONDITION CODE
	00 × × h	000064h	06h

USAGE CONDITIONS 40 OF PTB-2

FIG. 23

# DRAFT

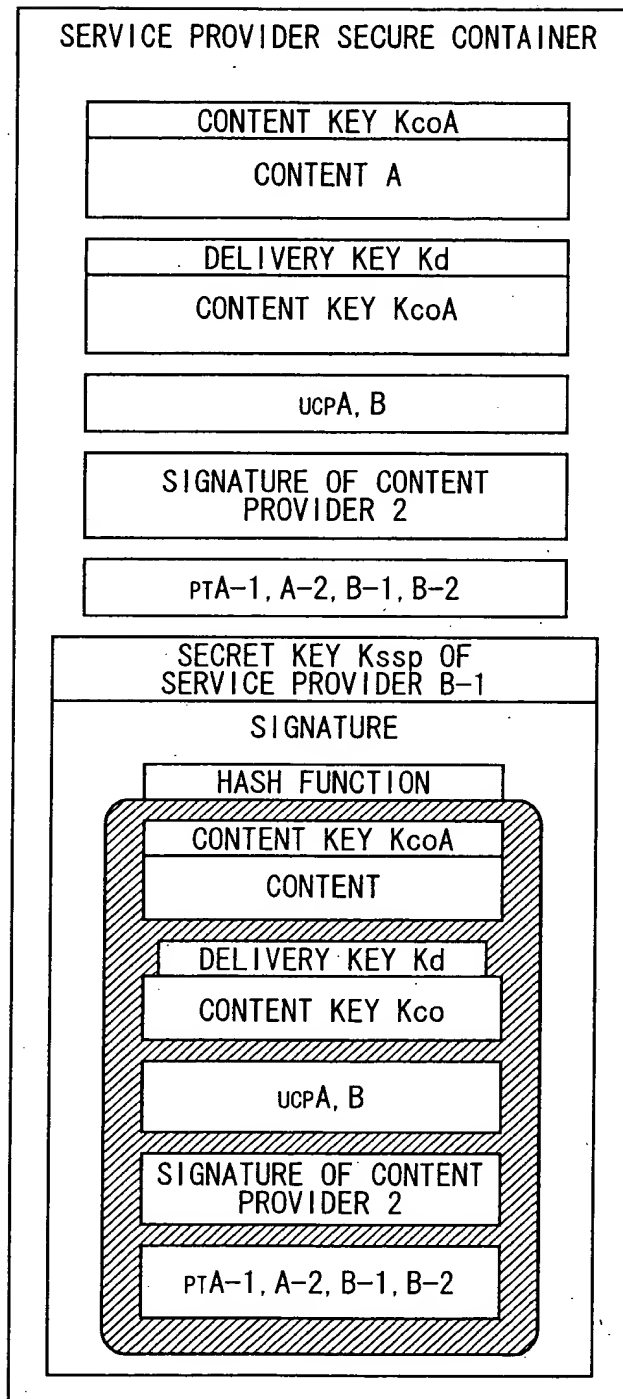


FIG. 24

AUTHENTICATION CERTIFICATE OF SERVICE  
PROVIDER 3-1

VERSION NUMBER OF AUTHENTICATION  
CERTIFICATE

SERIAL NUMBER OF AUTHENTICATION  
CERTIFICATE ASSIGNED  
BY CERTIFICATION AGENCY

ALGORITHM AND PARAMETERS USED  
FOR SIGNATURE

NAME OF CERTIFICATION AGENCY

VALIDITY PERIOD OF AUTHENTICATION  
CERTIFICATE

NAME (ID) OF SERVICE PROVIDER 3-1

PUBLIC KEY  $K_{psp}$  OF SERVICE PROVIDER 3-1

SECRET KEY  $K_{sca}$  OF CERTIFICATION AGENCY

SIGNATURE

HASH FUNCTION

VERSION NUMBER OF AUTHENTICATION  
CERTIFICATE

SERIAL NUMBER OF AUTHENTICATION  
CERTIFICATE ASSIGNED  
BY CERTIFICATION AGENCY

ALGORITHM AND PARAMETERS USED  
FOR SIGNATURE

NAME OF CERTIFICATION AGENCY

VALIDITY PERIOD OF AUTHENTICATION  
CERTIFICATE

NAME (ID) OF SERVICE PROVIDER 3-1

PUBLIC KEY  $K_{psp}$  OF  
SERVICE PROVIDER 3-1

FIG. 25



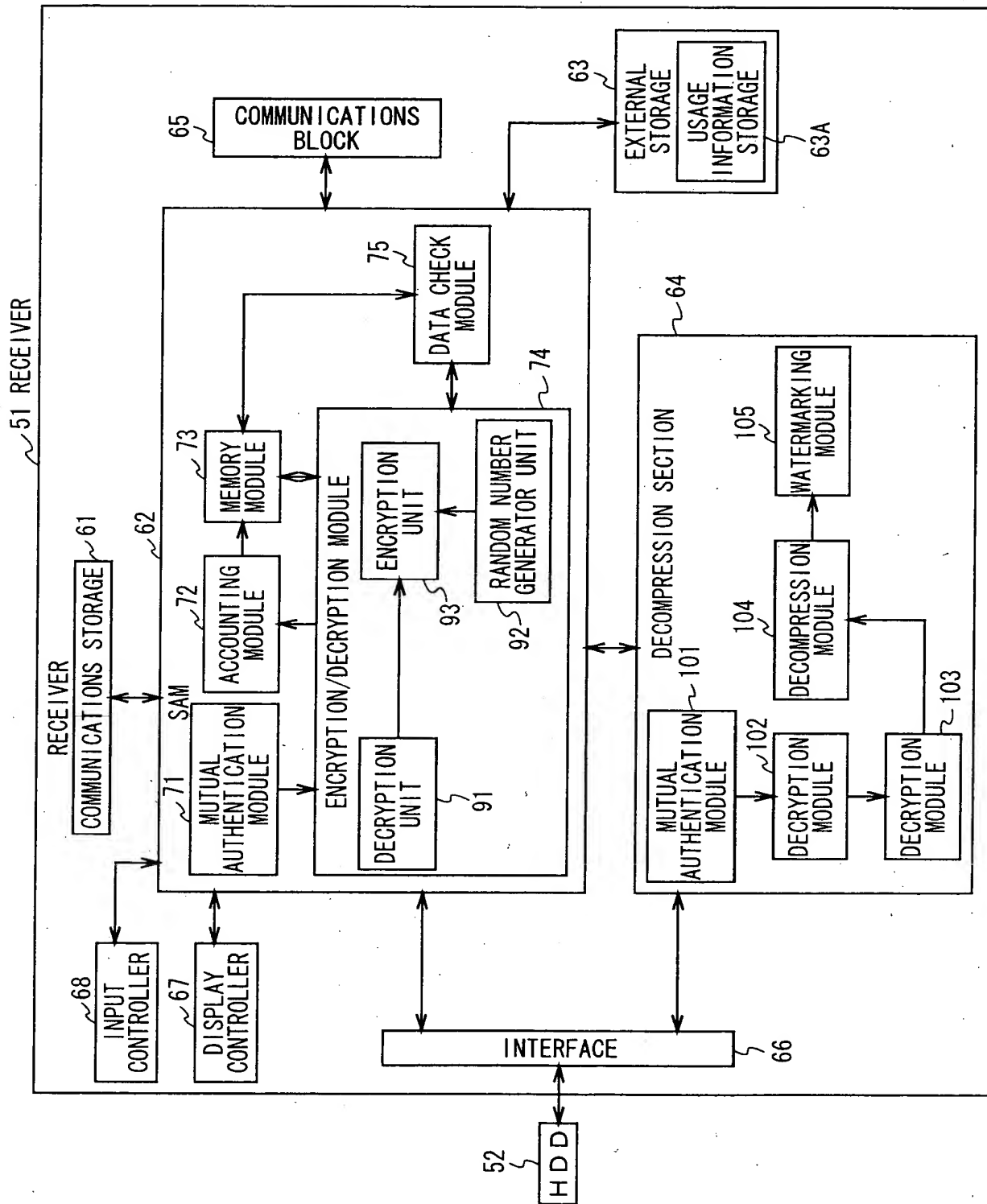


FIG. 26

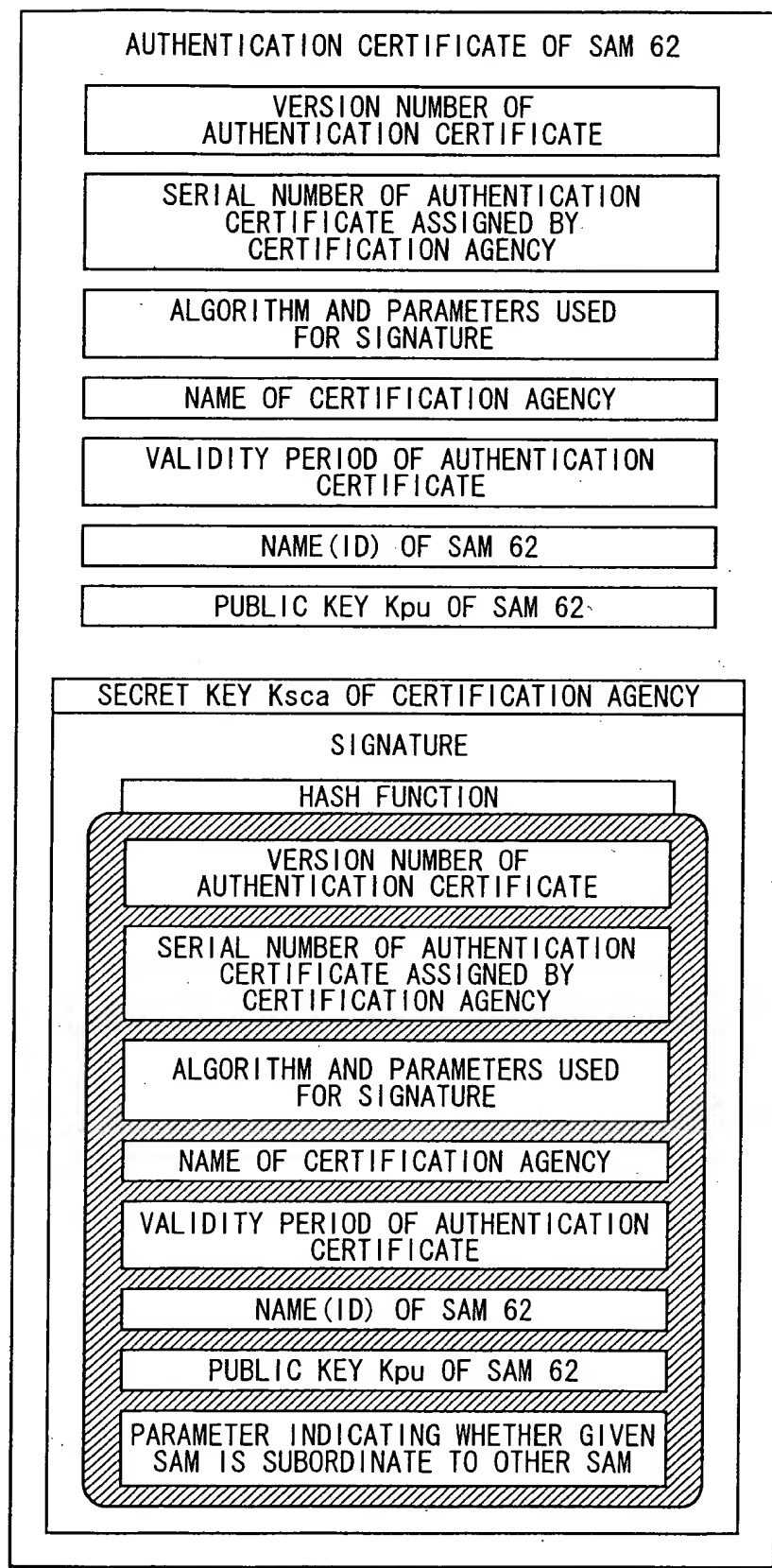


FIG. 27

CONTENT ID		ID OF CONTENT A
CONTENT PROVIDER ID		ID OF CONTENT PROVIDER 2-1
UCP ID		ID OF uCPA
UCP VALIDITY PERIOD		VALIDITY PERIOD OF uCPA
SERVICE PROVIDER ID		ID OF SERVICE PROVIDER 3-1
PT ID		ID OF pTA-1
PT VALIDITY PERIOD		VALIDITY PERIOD OF pTA-1
UCS ID		ID OF uCSA
SAM ID		ID OF SAM62
USER ID		ID OF USER F
USAGE DETAILS	ID	ID OF USAGE DETAILS 11
	TYPE	PURCHASE AND REPRODUCE
	PARAMETER	x x x
	CONTROL TRANSFER STATUS	SOURCE: ID OF SAM62, DESTINATION: ID OF SAM62
USAGE HISTORY		x x x

uCSA

FIG. 28

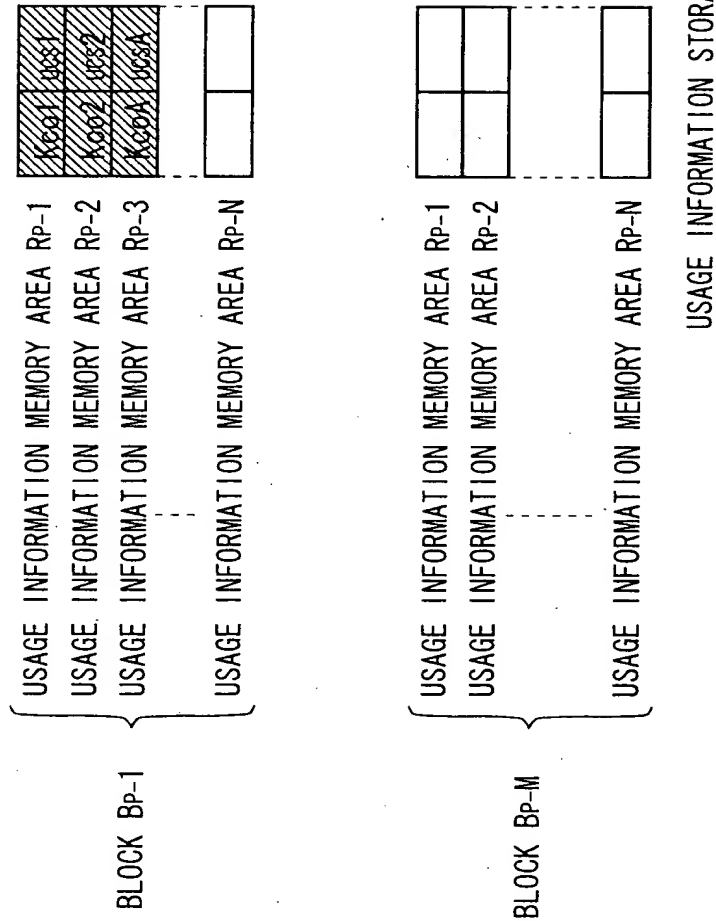


FIG. 29

CONTENT ID	ID OF CONTENT A
CONTENT PROVIDER ID	ID OF CONTENT PROVIDER 2-1
UCP ID	ID OF ucpA
UCP VALIDITY PERIOD	VALIDITY PERIOD OF ucpA
SERVICE PROVIDER ID	ID OF SERVICE PROVIDER 3-1
PT ID	ID OF pTA-1
PT VALIDITY PERIOD	VALIDITY PERIOD OF pTA-1
UCS ID	ID OF ucsA
SAM ID	ID OF SAM62
USER ID	ID OF USER F
USAGE DETAILS	ID
	ID OF USAGE DETAILS 11
	TYPE
	PURCHASE AND REPRODUCE
	PARAMETER
	x x x
	CONTROL TRANSFER STATUS
	SOURCE: ID OF SAM62, DESTINATION: ID OF SAM62
ACCOUNTING HISTORY	x x x

## ACCOUNTING INFORMATION A

FIG. 30

0971911-120800

PUBLIC KEY Kpu OF SAM62		
SECRET KEY Ksu OF SAM62		
PUBLIC KEY Kpesc OF THE EMD SERVICE CENTER 1		
PUBLIC KEY Kpca OF THE CERTIFICATION AGENCY		
SAVE KEY Ksave		
THREE MONTHS' DELIVERY KEYS Kd		
⋮		
AUTHENTICATION CERTIFICATE OF SAM62		
REFERENCE INFORMATION 51		
ACCOUNTING INFORMATION		
⋮		
VERIFICATION VALUES Hp-1	VERIFICATION VALUES Hp-2	.....
		..... VERIFICATION VALUES Hp-M

FIG. 31

SAM ID		ID OF SAM62
EQUIPMENT NUMBER		EQUIPMENT NUMBER(1000) OF RECEIVERS 51
SETTLEMENT ID		SETTLEMENT ID OF USER F
CHARGE LIMIT		FORMAL REGISTRATION
ACCOUNT-SETTLING USER INFORMATION	NAME	NAME OF USER F
	ADDRESS	ADDRESS OF USER F
	PHONE NUMBER	PHONE NUMBER OF USER F
	SETTLEMENT INSTITUTION INFORMATION	SETTLEMENT INSTITUTION INFORMATION OF USER F
	DATE OF BIRTH	DATE OF BIRTH OF USER F
	AGE	AGE OF USER F (21 YEARS)
	SEX	SEX OF USER F
	USER ID	USER ID OF USER F
	PASSWORD	PASSWORD OF USER F
SUBORDINATE USER INFORMATION	NAME	
	ADDRESS	
	PHONE NUMBER	
	DATA OF BIRTH	
	SEX	
	USER ID	
	PASSWORD	
		...
USE POINT INFORMATION		USE POINT INFORMATION OF RECEIVERS 51

REFERENCE INFORMATION 51

FIG. 32

USER	PROVIDER	USE POINT
ACCOUNT- SETTLING USER	CONTENT PROVIDER2-1	222POINTS
	CONTENT PROVIDER2-2	123POINTS
	SERVICE PROVIDER3-1	345POINTS
	SERVICE PROVIDER3-2	0POINT

USE POINT INFORMATION OF REFERENCE 51

FIG. 33



LIST SECTION

SAM ID	USER ID	PURCHA-SING	ACCOUN-TING	EQUIPMENT BILLED	MASTER EQUIPMENT	STATUS FLAG	SIGNATURE TO CONDITIONS	SIGNATURE TO REGISTRATION LIST
ID OF SAM62	USER ID OF USER F	YES	YES	ID OF SAM62	NONE	NO RESTRI-CTION	x x x x	x x x x
ID OF SAM212	USER ID OF USER A	YES	YES	ID OF SAM212	NONE	NO RESTRI-CTION	x x x x	

REGISTRATION  
CONDITIONS  
OF RECEIVER 51

REGISTRATION  
CONDITIONS  
OF RECEIVER 201

SAM ID	ID OF SAM62
VALIDITY PERIOD	x x x x
VERSION NUMBER	x x x x
NUMBER OF EQUIPMENT CONNECTED	2

SAM INFORMATION SECTION

FIG. 34

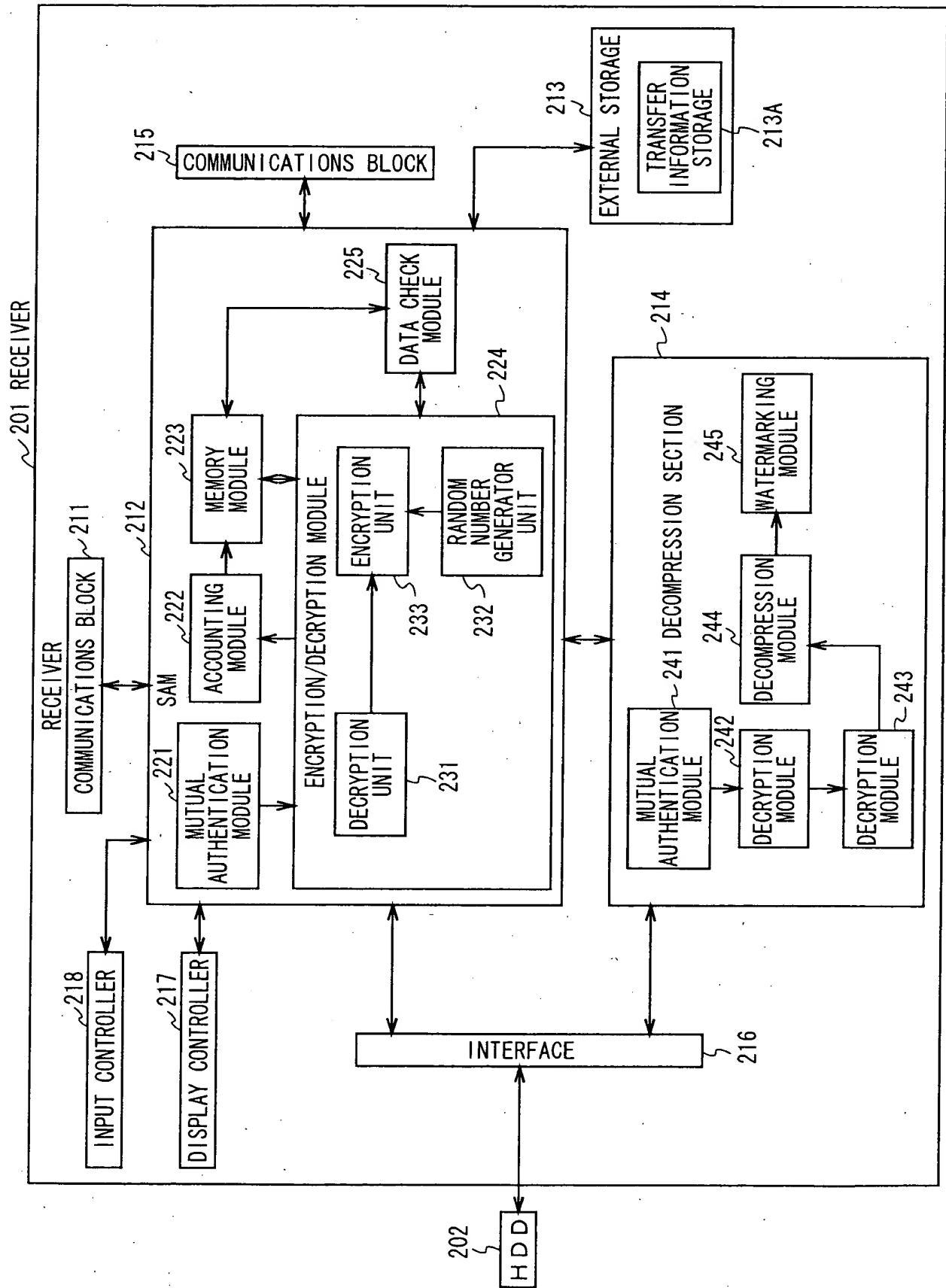


FIG. 35

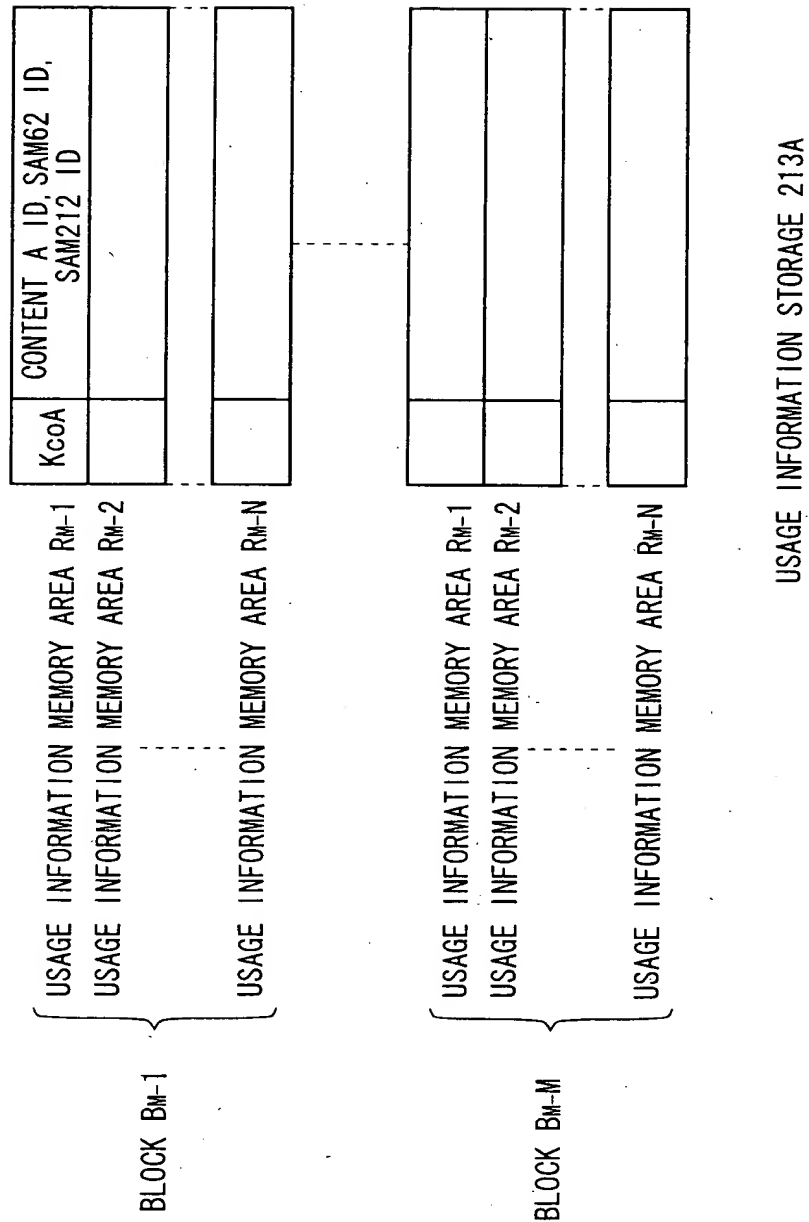


FIG. 36

PUBLIC KEY Kpu OF SAM212		
SECRET KEY Ksu OF SAM212		
PUBLIC KEY Kpesc OF THE EMD SERVICE CENTER 1		
PUBLIC KEY Kpca OF THE CERTIFICATION AGENCY		
SAVE KEY Ksave		
THREE MONTHS' DELIVERY KEYS Kd		
⋮		
AUTHENTICATION CERTIFICATE OF SAM212		
REFERENCE INFORMATION 201		
⋮		
VERIFICATION VALUES Hp-1	VERIFICATION VALUES Hp-2	.....
.....		VERIFICATION VALUES Hp-M

FIG. 37

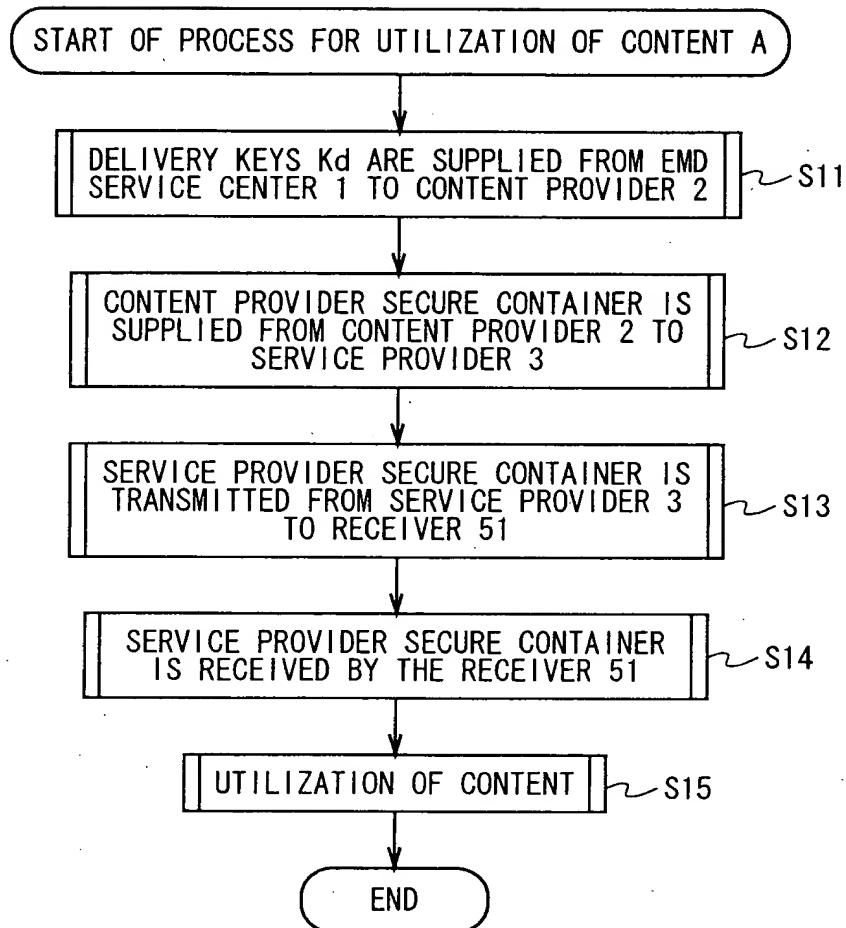


FIG. 38

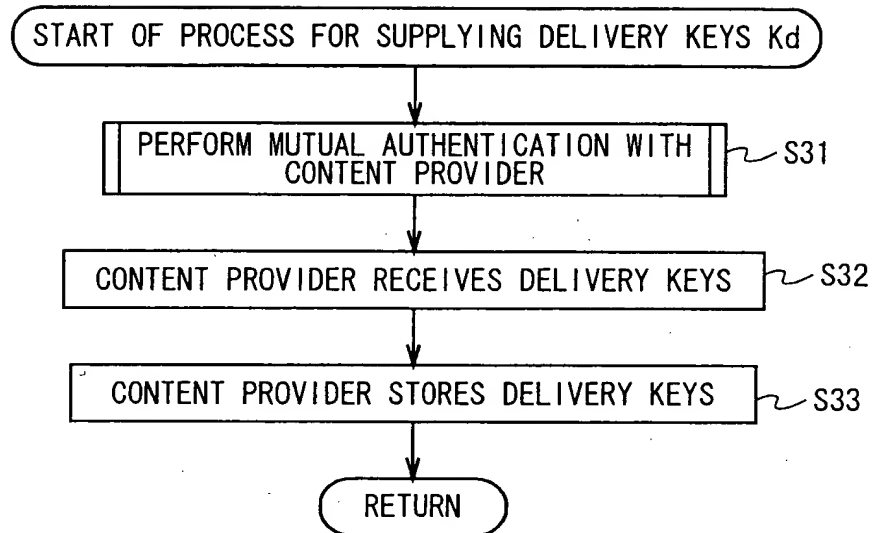


FIG. 39

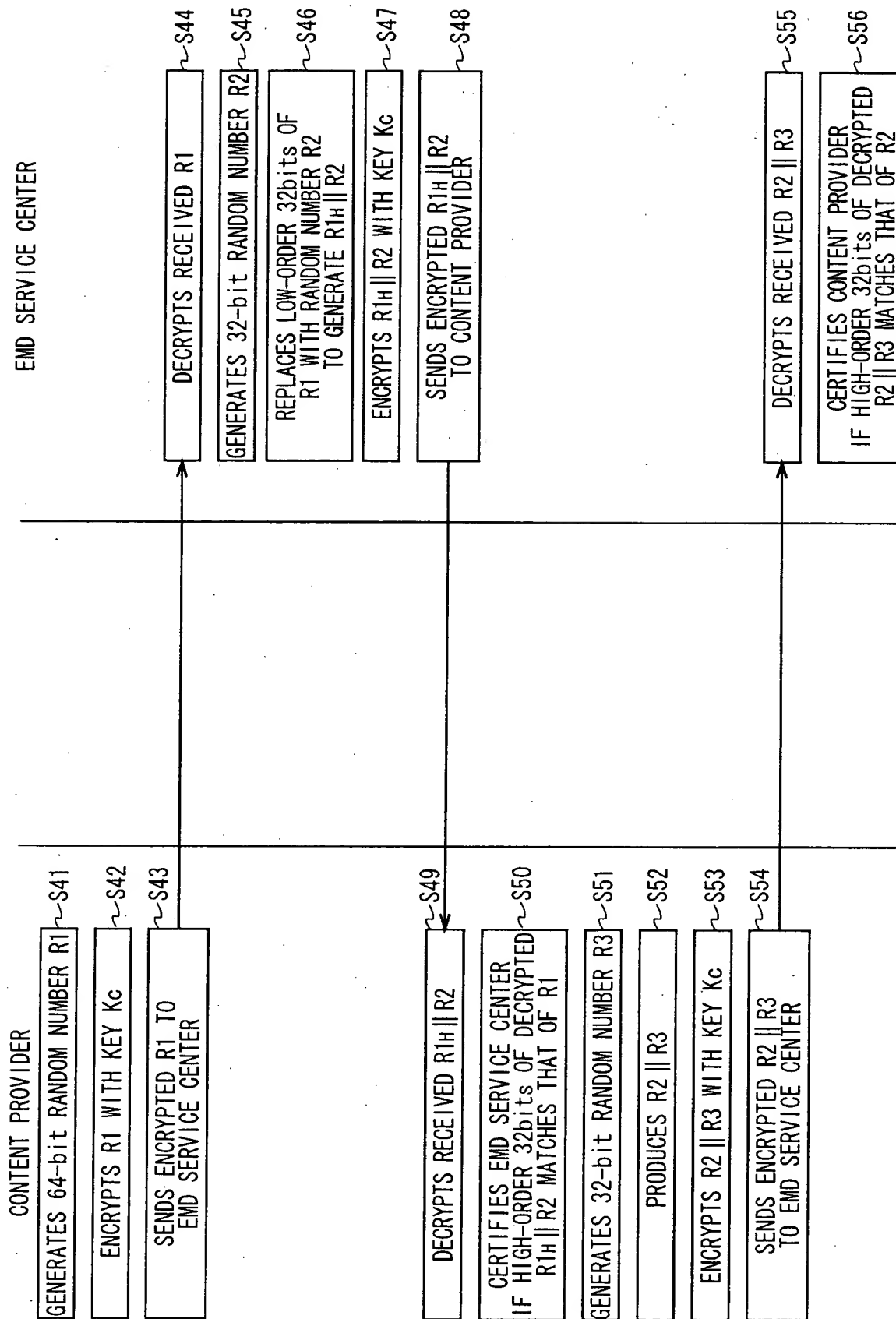
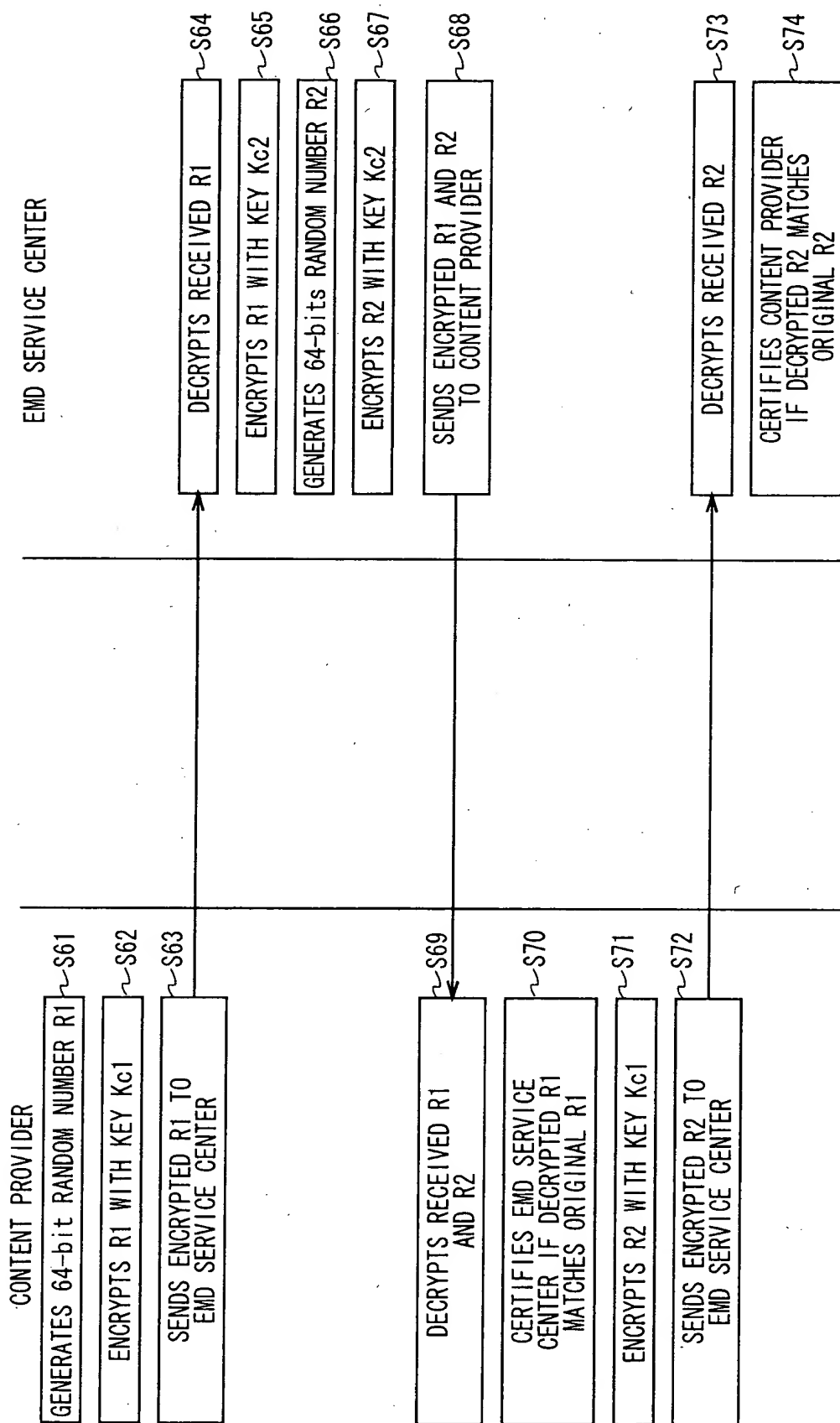


FIG. 40





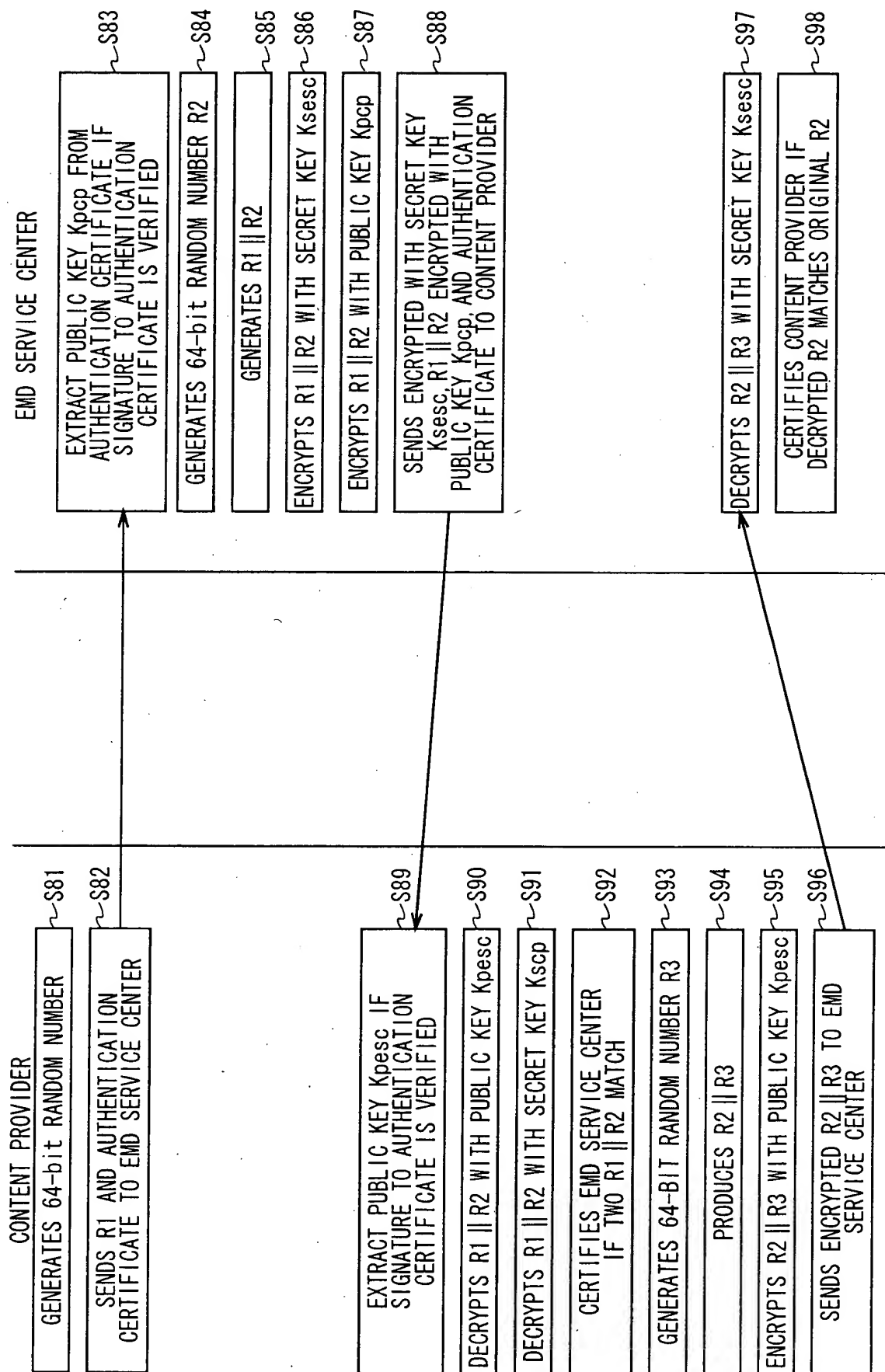


FIG. 42



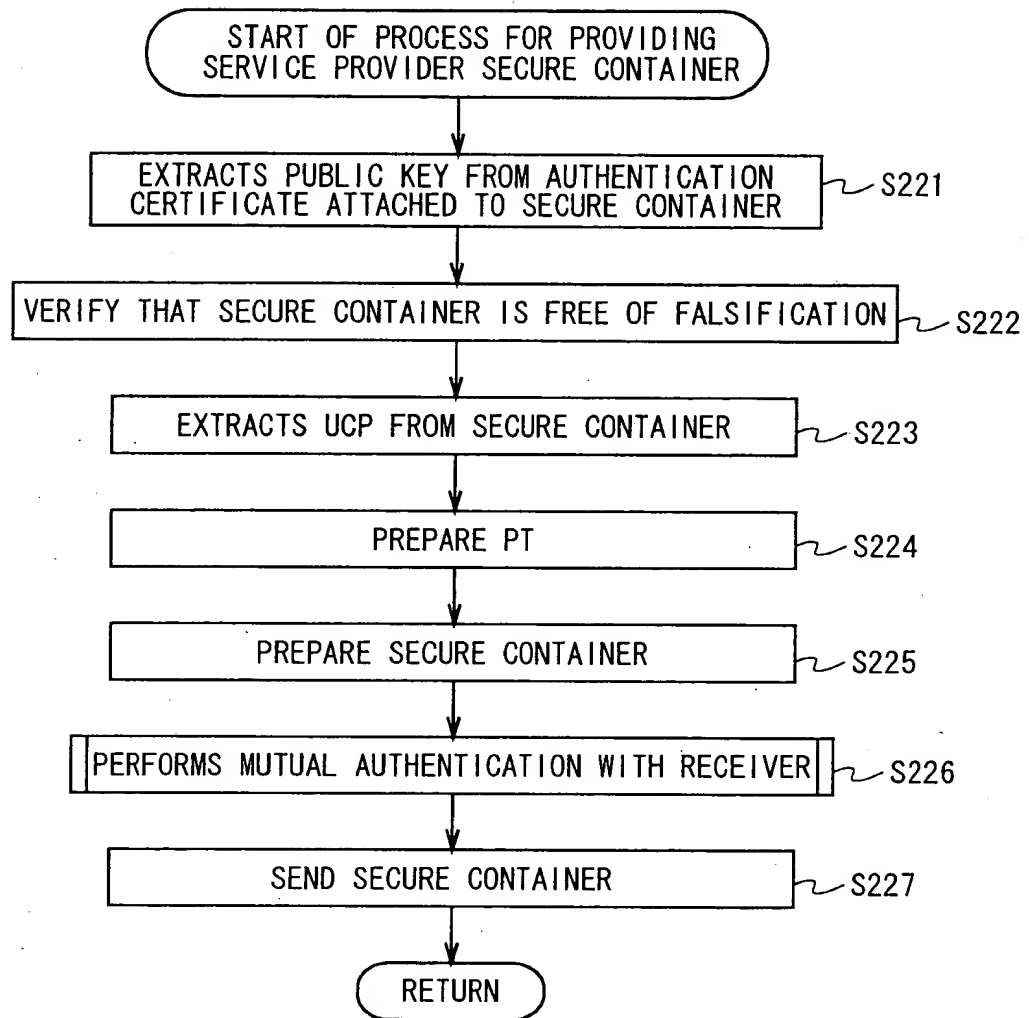


FIG. 44

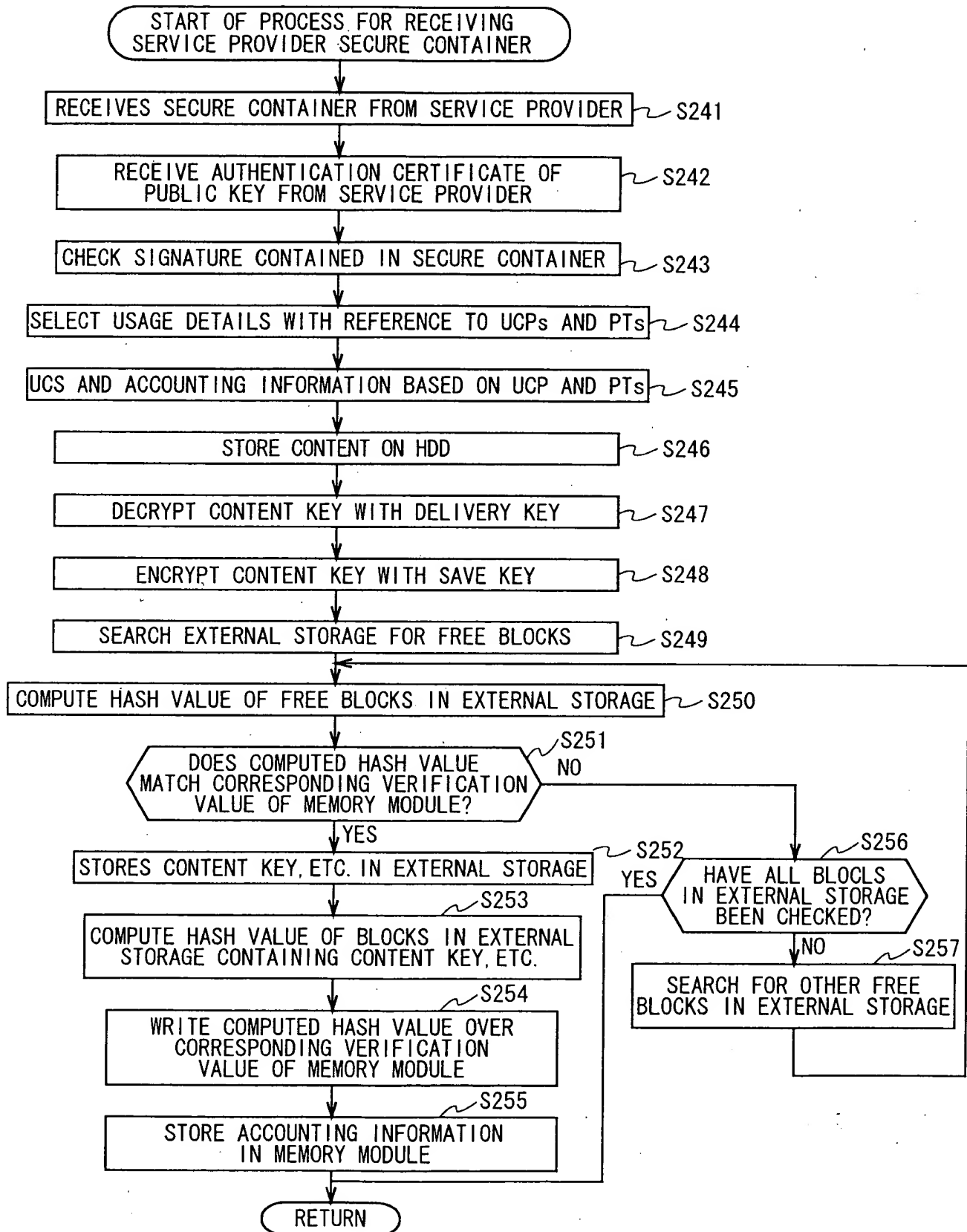


FIG. 45

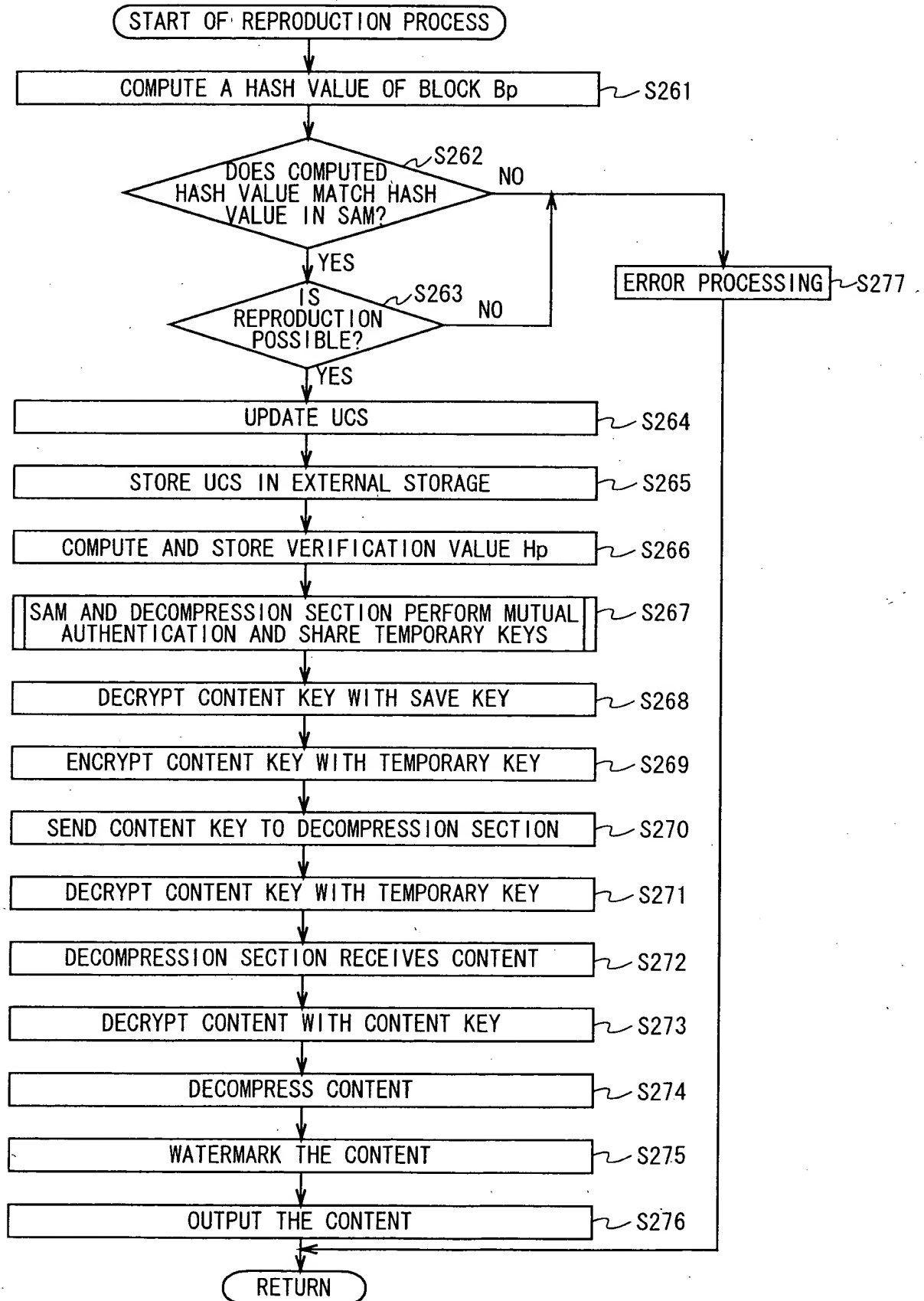


FIG. 46  
45/50

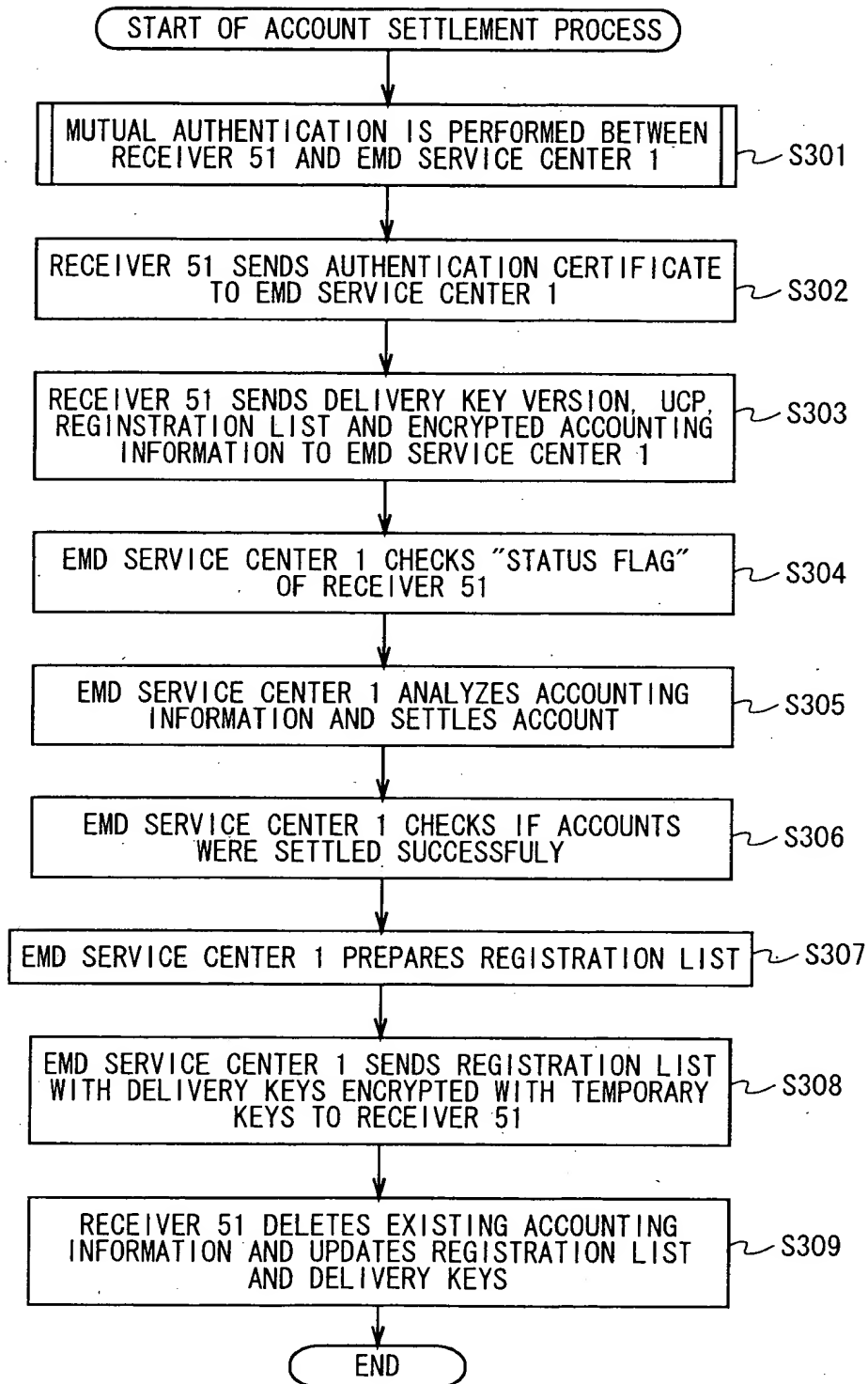


FIG. 47

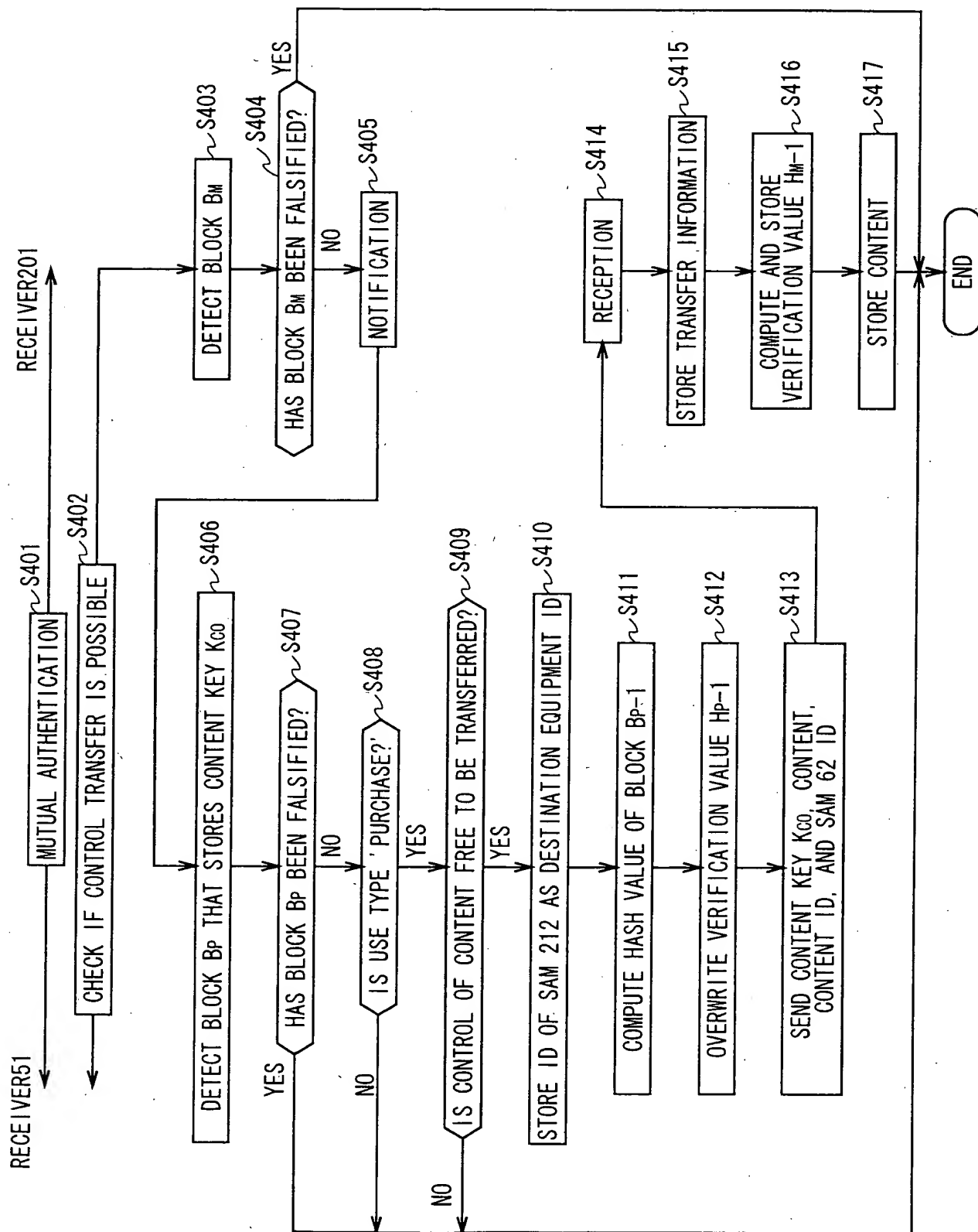


FIG. 48

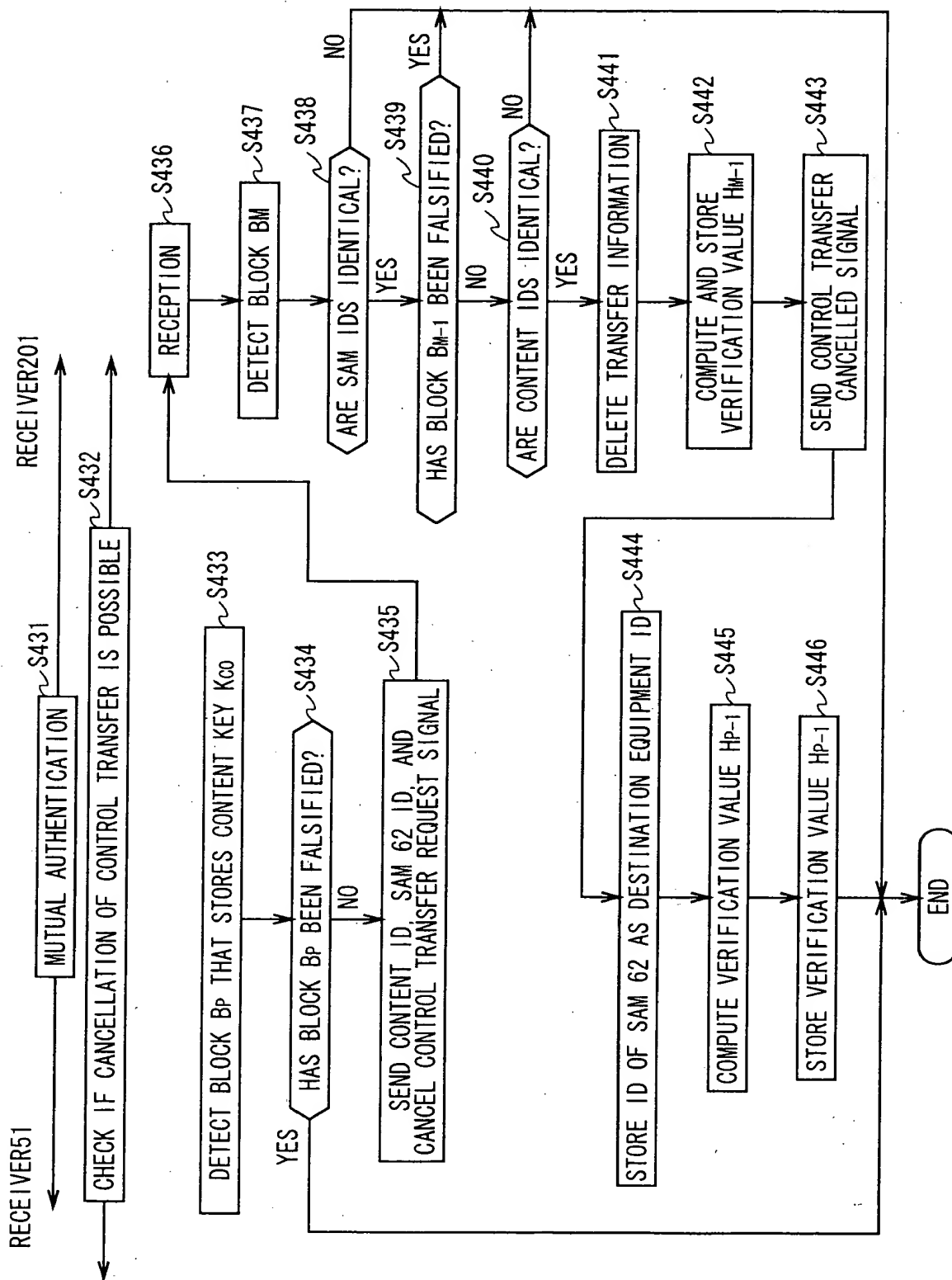


FIG. 49





211 ... communication block, 212 ... SAM, 213 ... external storage,  
214 ... decompression section, 215 ... communication block, 216 ...  
interface, 217 ... display controller, 218 ... input controller, 221 ...  
mutual authentication module, 222 ... accounting module, 223 ... memory  
module, 224 ... encryption/decryption module, 225 ... data check module,  
231 ... decryption unit, 232 ... random number generator unit, 233 ...  
encryption unit, 241 ... mutual authentication module, 242 ...  
decryption module, 243 ... decryption module, 244 ... decompression  
module, 245 ... watermarking module.

09/719111-120800